

**FUTURE FISHERIES IMPROVEMENT PROGRAM
GRANT APPLICATION**

(please fill in the highlighted areas)

I. APPLICANT INFORMATION

- A. Applicant Name: The Trust for Public Land
- B. Mailing Address: Emerson Cultural Center 111 South Grand Avenue, Suite 203
- C. City: Bozeman State: MT Zip: 59715
- Telephone: 406-522-7450
- D. Contact Person: Lisa Bay; Lisa Bay Consulting
- Address if different from Applicant: 31 Division Street
- City: Helena State: MT Zip: 59601
- Telephone: 406-442-9671 lisamaebay@gmail.com
- E. Landowner and/or Lessee Name
(if other than Applicant): The Nature Conservancy
- Mailing Address: 32 South Ewing Street
- City: Helena State: MT Zip: 59601
- Telephone: 406-443-0303

II. PROJECT INFORMATION*

- A. Project Name: Swan State Forest Bridge Reconstruction
- River, stream, or lake: South Woodward Creek
- Location: Township 23N Range 18W Section 29
- County: Lake
- B. Purpose of Project:
Replace a failing bridge to prevent the delivery of fine sediments into South Woodward Creek, a major spawning and rearing tributary for the Swan Lake bull trout population.
- C. Brief Project Description: _____

The Trust for Public Land (TPL) has worked since the early 2000s to conserve the magnificent Swan Valley, in the heart of the Crown of the Continent, a 10-million-acre international region. Because of the documented biological richness of the valley and the region, and the wildlife connections the Swan Valley provides between iconic public lands — such as Glacier-Waterton International Peace Park and the Bob Marshall and Mission Mountains Wilderness Areas — TPL and The Nature Conservancy (TNC) acquired nearly 66,000 acres of Plum Creek Timber Company lands in the Swan Valley in 2009-2010. These acquisitions were part of the 310,000-acre Montana Legacy Project (MLP), and addressed a problematic, century-old checkerboard pattern of land ownership in the Swan Valley.

A total of 44,820 acres of the 66,000-acre Swan Valley purchase have been transferred into public ownership. It is the remaining 14,600 acres of checkerboard MLP tracts to be acquired by Montana Department of Natural Resources and Conservation (DNRC) and added to the Swan River State Forest (SRSF) that are the subject of a joint restoration plan by TPL, TNC, DNRC, and FWP. This plan identifies several restoration projects aimed at ameliorating sediment delivery into key bull trout habitat, improving public access management, providing for Swan Valley noxious weed control, advancing invasive lake trout eradication, and providing for wetlands assessment and restoration (please see attached plan). Ultimately, the acquisition will consolidate checkerboard sections under a single, larger DNRC-SRSF ownership and management unit. The land transaction is expected to occur by the end of 2012.

The joint SRSF restoration plan identified and ranked projects based on reducing stressors to native species such as bull trout, Canada lynx, and grizzly bear. A key project identified was reconstructing a bridge on upper South Woodward Creek. After a May 2012 site tour with DNRC, FWP, TPL, TNC, and Swan Ecosystem Center staffs, this remained the highest priority project. According to local fisheries biologists, South Woodward Creek is one of the top two bull trout strongholds in the Swan.

The deck of this relatively new bridge is salvageable; however, the concrete abutments are failing and there is a high risk of mass wasting and consequent delivery of high volumes of fine sediments into the stream. The bridge utilizes extremely tall precast concrete abutments and wing-walls to realize a shortened bridge span as it crosses South Woodward Creek. The wing-walls retain about a hundred cubic yards of fill for the approaches to the bridge. Abutment and wing-wall joints are separating and precast concrete wing-walls are being distorted and cracking due to extreme fill pressure. Dead-man steel rods intended to help keep the wing-walls in place have failed and are poking through the concrete or have been broken off.

The failure is occurring because poor fill material was used that retains high amounts of moisture and it is incapable of being bound together. The condition of the fill was exacerbated by installing it during a time of wet conditions (late fall) and using poor compaction techniques. This has caused excessive settling with extreme contraction and expansion during temperature change, leading to high pressure exerted on abutments and wing-walls over time. If the abutments or wing-walls fail the bridge will collapse and the fill behind them will contribute large amounts of sediment into the creek. Proposed repairs include: remove existing fill behind abutments, reset and align abutments and wing-walls, and refill behind abutments with low moisture content material that is properly compacted and bound with layers of filter fabric. In addition, repair and reinstall abutment and wing-wall dead-men reinforcing.

At the May 2012 field assessment, all agreed that the risk of failure is fairly certain. DNRC managers and consulting engineers have determined that the cost to repair the bridge, including contract administration is estimated to be \$61,462. TPL respectfully requests \$30,000 from the Future Fisheries Program to reconstruct this bridge. TPL will provide \$20,000 in cash match and \$462 in in-kind services. DNRC will provide \$10,000 in cash match and \$1,000 in in-kind services.

D. Length of stream or size of lake that will be treated: 9 miles

E. Project Budget:

Grant Request (Dollars): \$ 30,000

Contribution by Applicant (Dollars): \$ 20,000 In-kind \$ 462
(salaries of government employees are not considered as matching contributions)

Contribution from other Sources (Dollars): \$ 10,000 In-kind \$ 1,000
(attach verification - See page 2 budget template)

Total Project Cost: \$ 61,462

F. Attach itemized (line item) budget – see template

G. Attach specific project plans, detailed sketches, plan views, photographs, maps, evidence of landowner consent, evidence of public support, and/or other information necessary to evaluate the merits of the project. If project involves water leasing or water salvage complete supplemental questionnaire (fwp.mt.gov/habitat/futurefisheries/supplement2.doc).

H. Attach land management and maintenance plans that will ensure protection of the reclaimed area.

III. PROJECT BENEFITS*

A. What species of fish will benefit from this project?:

Bull trout and westslope cutthroat trout.

B. How will the project protect or enhance wild fish habitat?:

Woodward Creek is considered a major spawning and rearing tributary for the Swan Lake bull trout population. Swan Lake represents one of the last strongholds for migratory bull trout. Replacing the failing bridge abutments will protect valuable spawning and rearing habitat by eliminating a significant threat of fine sediment increases. The entire Woodward Creek drainage (including South Woodward) typically accounts for 10-20% of all bull trout spawning redds. Therefore, loss of this habitat could have a considerable impact to the overall population.

C. Will the project improve fish populations and/or fishing? To what extent?:

Woodward Creek has an outstanding fisheries resource value and as stated before, is important to maintaining bull trout in Swan Lake. Swan Lake provides one of only a few opportunities where anglers can legally catch and release these large native fish. Therefore, loss of this habitat could have a considerable impact to the overall bull trout population and to fishing opportunities in Swan Lake.

D. Will the project increase public fishing opportunity for wild fish and, if so, how?:

Protecting spawning habitat will maintain public fishing opportunities on this stream as well as downstream in the Swan River and Swan Lake.

E. If the project requires maintenance, what is your time commitment to this project?:

The Nature Conservancy in Montana currently owns this land as part of the Montana Legacy Project. By the end of 2012, The Conservancy will transfer ownership to the Montana Department of Natural Resources and Conservation who will maintain this bridge as part of its management plan for the Swan River State Forest.

F. What was the cause of habitat degradation in the area of this project and how will the project correct the cause?:

The failing concrete abutments on the bridge are causing sediment to enter in to the stream. The complete failure of the bridge and abutments would cause a catastrophic influx of fine sediment into the stream. By reconstructing the bridge, the sediment influx will be prevented.

G. What public benefits will be realized from this project?:

An important bull trout spawning and rearing stream in the Swan Valley will be protected from fine sediment increases. A bridge on a public road will maintain access to the Swan River State Forest.

H. Will the project interfere with water or property rights of adjacent landowners? (explain):

The bridge is located in the midst of the 15,000-acre Swan River State Forest owned by The Nature Conservancy and the Department of Natural Resources and Conservation. Adjacent landowners will not be impacted by this project.

I. Will the project result in the development of commercial recreational use on the site?: (explain):

No

J. Is this project associated with the reclamation of past mining activity?:

No

Each approved project sponsor must enter into a written agreement with the Department specifying terms and duration of the project.

IV. AUTHORIZING STATEMENT

I (we) hereby declare that the information and all statements to this application are true, complete, and accurate to the best of my (our) knowledge and that the project or activity complies with rules of the Future Fisheries Improvement Program.

Applicant Signature:



Date:

11/30/2012

Sponsor (if applicable):

***Highlighted boxes will automatically expand.**

**Mail To: Montana Fish, Wildlife & Parks
Habitat Protection Bureau
PO Box 200701
Helena, MT 59620-0701**

Incomplete or late applications will be returned to applicant.

Applications may be rejected if this form is modified.

*****Applications may be submitted at anytime, but must be received by the Future Fisheries Program office in Helena before December 1 and June 1 of each year to be considered for the subsequent funding period.*****